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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,215	07/26/2001	Paulus Cornelis Duineveld	NL000510	7521

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EXAMINER

ZIMMERMAN, GLENN

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,215

Applicant(s)

DUINEVELD ET AL.

Examiner

Glenn Zimmerman

Art Unit

2879

Period for Reply
The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 1, 5 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s): ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on November 29, 1999. It is noted, however, that applicant has not filed a certified copy of the 99204018.8 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1, 5 and 6 are objected to because of the following informalities: In claim 1 line(s) 9, the examiner suggests changing "neighboring" to "neighboring said". In claim 5 line(s) 5 and 10, the examiner suggests changing "neighboring" to "neighboring said". In claim 6 line(s) 7, the examiner suggests changing "which" to "which said".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

A 112 2nd paragraph rejection has been determined for claim 4, as written about above. However, a further evaluation of the claim will be done while interpreting "such as" as "which is a".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Friend
WO 99/12398.

Regarding claim 1, Friend discloses an organic electroluminescent device having a plurality of independently addressable electroluminescent elements (**page 1 lines 15-22; page 13 lines 16-25; Fig. 4**) and device comprising:

- a patterned first electrode layer comprising a plurality of first electrodes
(electrode ref. 24) ;
- a second electrode layer **(electrode ref. 25) ;**
- an organic, optionally patterned, electroluminescent layer sandwiched
between the first and the second electrode layer **(light emissive region ref. 23; page 9 second bullet);**

- an organic charge transport layer having mutually separate charge transport areas which are positioned between the electroluminescent layer and the first electrode layer (**page 9 first bullet**) ; and
- a relief pattern (**photoresist ref. 21; page 5 last paragraph and page 6 first paragraph**) separating the charge transport areas along neighboring first electrodes.

Regarding claim 2, Friend discloses an organic electroluminescent device as claimed in claim 1 wherein the relief pattern has positively-sloped sections (**photoresist Fig. 3 ref. 21; Fig. 5 ref. 40 and Fig. 7 ref. 64**).

Regarding claim 3, Friend discloses an electroluminescent device as claimed in claim 1, characterized in that the electroluminescent device is a display device of the passive matrix type (**page 13 lines 16-25**) wherein the plurality of first electrodes is a plurality of row electrodes, the second electrode layer comprises a plurality of independently addressable column electrodes which cross the row electrodes and the relief pattern.

Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Seki et al. WO99/12395.

Regarding claim 5, Seki et al. disclose a method of manufacturing an organic electroluminescent device comprising a plurality of independently addressable electroluminescent elements, the method comprising:

- providing a patterned first electrode layer comprising a plurality of first electrodes (**anodes Fig. 1s ref. 101**);

- providing a relief pattern (**partitioning member ref. 103**) extending between and along neighboring first electrodes;
- depositing a fluid layer (**organic Hole Injecting and Transporting compositions ref 106**) comprising organic charge transport material or a precursor material thereof;
- converting the fluid layer into an organic charge transport layer (**hole-injecting and transporting layer ref. 107**) having mutually separate charge transport areas which are positioned between the electroluminescent layer and the first electrode layer and which are mutually separated along neighboring first electrodes;
- providing at least one optionally patterned, electroluminescent layer (**organic light emitting layer ref. 109**); and
- providing an, optionally patterned, second electrode layer (**cathode ref. 110**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friend

WO 99/12398 in view of Pichler U.S. Patent 5,929,562.

Regarding claim 4, Friend teach all the limitations of claim 4, but fail to teach a battery-operated and/or hand-held device, which is a mobile phone. Pichler in the analogous art teaches a mobile phone. Additionally, Pichler teaches incorporation of such a mobile phone to improve the screens usefulness. The use in a mobile phone would also be conventional.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use mobile phone with the screen of Friend since such a modification would improve the EL devices usefulness as taught by Pichler and also would be conventional.

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 6, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a method of manufacturing including the combination of all the limitations as set forth in claim 6, and specifically flooding both the plurality of first electrodes and the relief pattern, and wherein during conversion the fluid layer breaks up in mutually separate fluid areas which extend between and along the relief pattern, which fluid areas are then converted into the mutually separate charge transport areas could not be found elsewhere in prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tanamura et al. U.S. Patent 6,306,559 disclose an Organic Electroluminescent Device Comprising a Patterned Photosensitive Composition and a Method for Producing Same. Ootsuki et al. U.S. Patent 6,087,772 disclose an Organic Electroluminescent Display Device Suitable for a Flat Display and Method of Forming the Same. Codama et al. U.S. Patent 6,290,563 disclose an Organic Electroluminescence Display Device and Producing Method Thereof. Steffensmeier U.S. Patent 6,452,330 disclose Interconnect Bump for Flat Panel Displays. Gyoutoku et al. U.S. Patent 6,351,066 disclose an Organic Electroluminescence Element Having an Insulating Bulkhead Having an Overhang Portion. Leising et al. U.S. Patent 5,949,188 disclose an Electroluminescent Display Device with Continuous Base Electrode. Shi et al. U.S. Patent 5,773,931 disclose an Organic Electroluminescent Device and Method of Making Same.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (703) 308-8991. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is n/a.



Glenn Zimmerman
October 29, 2002



ASHOK PATEL
PRIMARY EXAMINER